

Title (en)

MEASURING TRANSFORMER FOR THE MEASUREMENT OF A CURRENT FLOWING IN AN ELECTRIC CONDUCTOR

Publication

**EP 0262293 B1 19901227 (DE)**

Application

**EP 87106436 A 19870504**

Priority

CH 389986 A 19860929

Abstract (en)

[origin: US4810989A] A transformer system for measuring electrical current includes an electrical conductor having first and second conductor portions. The first conductor portion conducts electrical current in one direction and the second conductor portion conducts the electrical current in an opposite direction. The first conductor portion produces a magnetic field Ha and the second conductor portion produces a magnetic field Hb. A coil having a non-ferromagnetic core is positioned between the first and second conductor portions so that the axis of the coil is substantially parallel to the magnetic fields Ha and Hb. The separation between the outer circumferential surface of the coil and the first and second conductor portions is the minimum distance for avoiding a voltage breakdown therebetween for a predetermined maximum electrical current in the conductor portions. At least one ferromagnetic shield surrounds the first and second conductor portions for shielding the coil from external magnetic fields.

IPC 1-7

**G01R 15/02**; **H01F 40/06**

IPC 8 full level

**G01R 15/18** (2006.01); **H01F 38/28** (2006.01); **H01F 38/30** (2006.01)

CPC (source: EP US)

**G01R 15/18** (2013.01 - EP US); **H01F 38/30** (2013.01 - EP US)

Citation (examination)

dtv-Lexikon der Physik, Band 8 (1971), Deutscher Taschenbuch Verlag GmbH & Co. KG, München, Seite 245

Cited by

EP0481104A1; EP0350662A3; FR2727209A1; US5587695A; US5399963A

Designated contracting state (EPC)

AT BE CH DE ES FR GB IT LI NL SE

DOCDB simple family (publication)

**EP 0262293 A1 19880406**; **EP 0262293 B1 19901227**; AT E59480 T1 19910115; AU 603382 B2 19901115; AU 7891187 A 19880331; DE 3767106 D1 19910207; DK 166641 B1 19930621; DK 510487 A 19880330; DK 510487 D0 19870928; ES 2019323 B3 19910616; JP H081867 B2 19960110; JP S6386507 A 19880416; NO 170179 B 19920609; NO 170179 C 19920916; NO 874064 D0 19870928; NO 874064 L 19880330; US 4810989 A 19890307

DOCDB simple family (application)

**EP 87106436 A 19870504**; AT 87106436 T 19870504; AU 7891187 A 19870922; DE 3767106 T 19870504; DK 510487 A 19870928; ES 87106436 T 19870504; JP 18130687 A 19870722; NO 874064 A 19870928; US 8710087 A 19870819